

**REMARKS**

Applicants appreciate the Examiner's thorough review of the present application, and respectfully request reconsideration in light of the preceding amendments and the following remarks.

Counsel also thanks Examiner Doan for the courtesy of a telephone interview held on April 18, 2007.

Claims 1-20 are pending in the application. Independent claims 1, 8 and 15 have been amended to better define the claimed invention. No new matter has been introduced through the foregoing amendments.

**Specification Objection**

Examiner requires that the term "circle" in the specification at page 8 line 16 be replaced with "cycle." Applicants respectfully submit that the term has been amended in a response to the Office Action dated April 4, 2006, and therefore no further amendment is deemed required. Withdrawal of the objection is respectfully requested.

**Rejection of Claims 1, 3-8, 10-16 and 18-20 under 103(a)**

Claims 1, 3-8, 10-16 and 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Stoye* (US 6754899) in view of *Waldspurger* (US 6725289) and further in view of *Boudreau* (US 4493036). Applicants respectfully traverse the rejection for the following reasons.

**Stoye**

*Stoye* discloses a Share Memory Access Controller, in which (FIG. 1) a memory controller 16 is used to arbitrate between two competing processors 11 and 12 accessing an

external memory 15. It is particularly noted that the memory controller 15 is exclusively directed to arbitration of the memory 16 external to the processors 11 and 12.

### The Claimed Invention

The claimed invention is directed to a System Chip and its Related Method of Data Access and finds support in the specification as filed. In particular, when a microprocessor unit 201A issues an internal data access address for accessing an internal temporary storage 202 (whether it exists (FIG. 2A) or not (FIG. 2B)), a memory interface control unit 203 then “transform[s]” the **internal data access address** “into an **(external) data address** of the external memory unit (210)” as disclosed and claimed. Accordingly, the microprocessor unit 201A could obtain the required data from the external memory.

### Arguments

Regarding the claim limitation “memory interface control unit for correspondingly transforming an internal data access address into a data address of the external memory unit” in independent claim 1, 8 or 15, Examiner alleges that *Waldspurger* discloses an address mapping method to be used in *Stoye*. Applicants respectfully disagree for the following reasons.

Firstly, if the *Waldspurger*’s address mapping method is adapted for use in *Stoye*, if at all possible, it does no good and even defeats the purpose of *Stoye* for resolving the memory address conflict between the processors 11 and 12. Imagine that the address issued by the protocol processor 12 is mapped into another address according to *Waldspurger*, this complicates the matter in pursuing *Stoye*’s purpose, and a person skilled in the art definitely would not perform any address mapping in *Stoye*.

Secondly, what *Waldspurger* discloses is distinct from, or at least irrelevant to, the claimed invention. What is done in the claimed invention is transforming an **internal address** of

an internal memory storage (for example, 202 in Figures 2A/B) into an **external address** of the external memory unit (for example, 21 in Figures 2A/B). However, through out the disclosures of *Stoye* and *WalDSPURGER*, no such transformation is disclosed, and no such transformation is needed. Although a private memory 13 is briefly mentioned in *Stoye*, a person skilled in the pertinent art would not transform an internal address (of the private memory 13) into an external address (of the external memory unit) without **hindsight** based solely on the disclosures of *Stoye* and *WalDSPURGER*.

For the reasons discussed above, Applicants believe that claims 1, 3-8, 10-16 and 18-20 are patentable over *Stoye* in view of *WalDSPURGER*, and further in view of *Boudreau*.

#### **Rejection of Claims 2, 9 and 17 under 35 U.S.C. 103(a)**

Claims 2, 9 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Stoye*, *WalDSPURGER*, *Boudreau* and in view of *Gappisch* (US 2003/0033490). In addition to the above discussion concerning overcoming *Stoye* in view of *WalDSPURGER* and *Boudreau*, Applicants respectfully submit that *Gappisch* does not cure the deficiency of *Stoye*, *WalDSPURGER* and *Boudreau*. Accordingly, their combination, if at all possible, still lacks the claimed limitation as discussed above.

For the reasons discussed above, Applicants believe that Claims 2, 9 and 17 are patentable over *Stoye*, *WalDSPURGER*, *Boudreau* and in view of *Gappisch*.

#### **Amended Claims**

Notwithstanding the above, Applicants have voluntarily amended the independent claims to further define the claimed invention from the art, solely for the purpose of expediting prosecution.

In particular, all independent claims now positively recite two memory units, i.e., an internal memory unit and an external memory unit. The independent claims also call for a transformation of an (internal) data address of one (internal) memory unit into an (external) data address of the other (external) memory unit. The result is that the microprocessor unit could access the external memory unit. None of the references fairly teach or suggest the above discussed claim features and effect. The amended independent claims as well as their respective dependent claims are therefore patentable over the applied art of record.


Each of the Examiner's rejections has been traversed/overcome. Accordingly, Applicants respectfully submit that all claims are now in condition for allowance. Early and favorable indication of allowance is courteously solicited.

**The Examiner is invited to telephone the undersigned, Applicant's attorney of record, to facilitate advancement of the present application.**

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 07-1337 and please credit any excess fees to such deposit account.

Respectfully submitted,

LOWE HAUPTMAN & BERNER, LLP



Benjamin J. Hauptman  
Registration No. 29,310

USPTO Customer No. 22429  
1700 Diagonal Road, Suite 310  
Alexandria, VA 22314  
(703) 684-1111  
(703) 518-5499 Facsimile  
Date: May 1, 2007  
BJH/KL/ayw